



Immunity After the Vaccine

How Natural Immunity Works after COVID-19 Develops

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What is Immunity?

Immunity is when the immune system remembers the virus and protects against disease and reduces illness severity. The components of immunity protection include:

- Antibodies, which are proteins that circulate in the blood and recognize foreign substances like viruses, and neutralize them.
- Helper T cells help to recognize pathogens.
- Killer T cells kill pathogens.
- B cells make new antibodies when the body needs them.



People who recover from COVID-19 have been found to have all four of these components. However, specifics regarding long immunity is still unknown.

Most recently, a study published in the journal Science has found that **immunity** can **last** for as long as **8 months**.



This is important because this shows that the body can “**remember**” SARS-CoV-2. If it encounters the virus again, the **memory B cells** can quickly gear up and produce antibodies to fight it.



Vaccine-induced immunity after receiving immunization

- Currently, there are two vaccines authorized to for use in the US: Pfizer and Moderna.
- The Moderna vaccine is 94% effective; the Pfizer-BioNT vaccine is 95%
- Both vaccines work by helping the body develop immunity to the virus that causes COVID-19 without you having to get COVID-19.
- Both vaccines require two shots a few weeks apart to get full protection.
- Once you have full vaccine protection, your body is left with a supply of T cells as well as B cells that will remember how to fight the virus in the future, just like they do with natural immunity.
- However, it usually takes a few weeks for the body to produce T cells and B cells after vaccination. During this time, it's possible to acquire the virus that causes COVID-19 until your body can provide protection.

Source: <https://www.healthline.com/health-news/how-long-does-immunity-last-after-covid-19-what-we-know>

